

A NEW SUBGENUS FOR *LEUCOPIS LUTEICORNIS* MALLOCH,
A PREDATOR ON MEALYBUGS IN INDIA

(DIPTERA; CHAMAEMYIIDAE)

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McAlpine (1960) transferred *Leucopis* (*Neoleucopis*) *luteicornis* Malloch to the subgenus *Leucopomyia* Malloch although it was an exception therein in possessing ocellar bristles. I have examined material reared from larvae feeding on *Rastrococcus iceryoides* (Green) at Delhi, India, other specimens reared from larvae feeding on *Pulvinaria* sp. on *Swietenia Mahagoni* Jacq. at Bangalore, India, one specimen with no other data than "Ceylon (Koebele)," and a topotypical paratype (all in the U.S. National Museum). These all show that the basal crossvein of the wing (part of vein M_{3+4}) is completely lacking, a condition so far known among genera and subgenera related to *Leucopis* only in *Melaleucopis* Sabrosky. The ocellar bristles of *L. luteicornis* are much as in the type of the subgenus *Neoleucopis*, *L. pinicola* Malloch, well-developed reclinate bristles situated approximately on ocellar diameter anterad of the anterior ocellus and slightly farther apart than the distance between the mesal margins of the posterior ocelli. The mesonotal brownish stripes are lacking in *L. pinicola*, leaving the mesonotum uniformly gray; in *L. luteicornis* and *L. pulvinariae* Malloch (type of subgenus *Leucopomyia*), there is a pair of distinct brownish dorsocentral stripes (not "sublateral," as designated by McAlpine), somewhat broadened anteriorly and anterolaterally grading into the general gray color of the mesonotum. The considerations indicate that a new subgenus is required:

Indioleucopis, new subgenus of **Leucopis** Meigen

Lunule broadly exposed, furnished with fine whitish setulae; frons anteriorly deeply emarginate; frontal orbits without bristles; proscutellum present; costa attaining M; discal and second basal cells confluent; head, thorax, and abdomen densely gray pruinose; mesonotum with brownish dorsocentral stripes; mesopleuron bare; prescutellar acrostichal bristles well-developed; larvae associated with Pseudococcidae, Coccidae, and aphids.

Type species, *Leucopis luteicornis* Malloch.

The key to world genera of Chamaemyiidae by McAlpine (1960) may be modified as follows:

14. Thorax and abdomen subshining black; frontal orbit with a strong bristle;
 discal and second basal cells confluent, only a stub of a crossvein
 present genus **Melaleucopis** Sabrosky
 Head, thorax, and abdomen densely gray pruinose; discal and second basal
 cells separated, except in subgenus *Indioleucopis*
 genus **Leucopis** Meigen 15

15. Mesopleuron with one or more bristles and/or setulae
 subgenus **Leucopella** Malloch
 Mesopleuron bare 16
16. Prescutellar acrostichal bristles present 17
 Prescutellar acrostichal bristles absent 18
17. Mesonotum unicolorous; ocellar bristles present; larvae associated with
 adelgids; holarctic subgenus **Neoleucopis** Malloch
 Mesonotum with brown dorsocentral stripes on gray background; ocellar
 bristles present or absent; larvae associated with Pseudococcidae,
 Coccidae, and aphids 17a
- 17a. Ocellar bristles absent; discal and second basal cells separated; holarctic
 subgenus **Leucopomyia** Malloch
 Ocellar bristles present; discal and second basal cells confluent; India and
 Ceylon subgenus **Indioleucopis** Steyskal
 The complete synonymy of the species *Leucopis luteicornis* follows.

Leucopis (Indioleucopis) luteicornis Malloch, new status

Leucopis (Neoleucopis) luteicornis Malloch, 1924, Mem. Dept. Agric. India, Ent. Ser. 8 (7): 67; Ayyar, 1939, Jour. Mysore Agric. Exper. Un. 17 (4): 179; Le Pelley, 1943, Trans. Roy. Ent. Soc. London 93: 90; Puttarudria and Basavanna, 1957, Mysore Agric. Jour. 32: 12; ——— 1958, *ibid.*, 32: 161.

Leucopis (Leucopomyia) luteicornis Malloch, McAlpine, 1960, Can. Ent. 92: 54.

In the original description, the species was stated to be parasitic upon "rain-tree mealy bug," *Rastrococcus* (as *Phenacoccus*) *iceryoides* (Green); Ayyar reported the species on the rice mealybug, *Ripersia oryzae* Green, in southern India; Le Pelley noted it on *Pseudococcus lilacinus* Cockerell in Coimbatore; Puttarudria and Basavanna in 1957 stated that it is "very commonly predaceous upon aphids and also on mealybugs of the genus *Pseudococcus*" (abundantly on various plants); and the same authors in 1958 listed the species in a chart as very common at Bangalore attacking *Aphis gossypii* Glover on cotton.

REFERENCE

- McAlpine, J. F. 1960. A new species of *Leucopis* (*Leucopella*) from Chile and a key to the world genera and subgenera of Chamaemyiidae (Diptera). Can. Ent. 92: 51-58.